

Figure 1: Self Addressing Microlocations
(Microlithographic Fabrication)

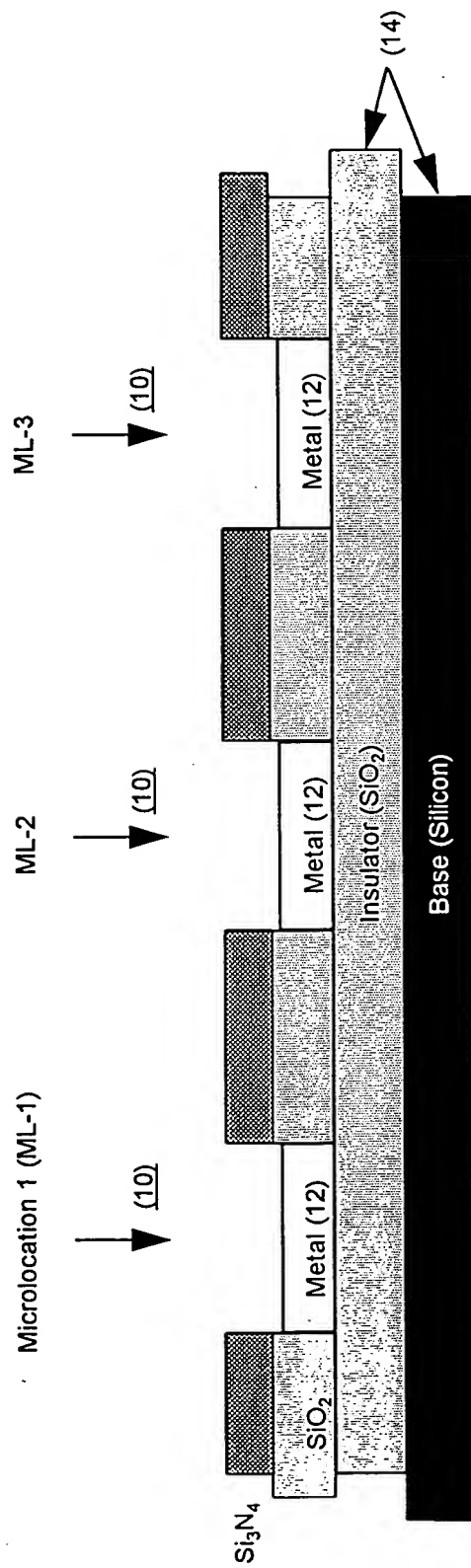


Figure 2: Microlocation Design Features

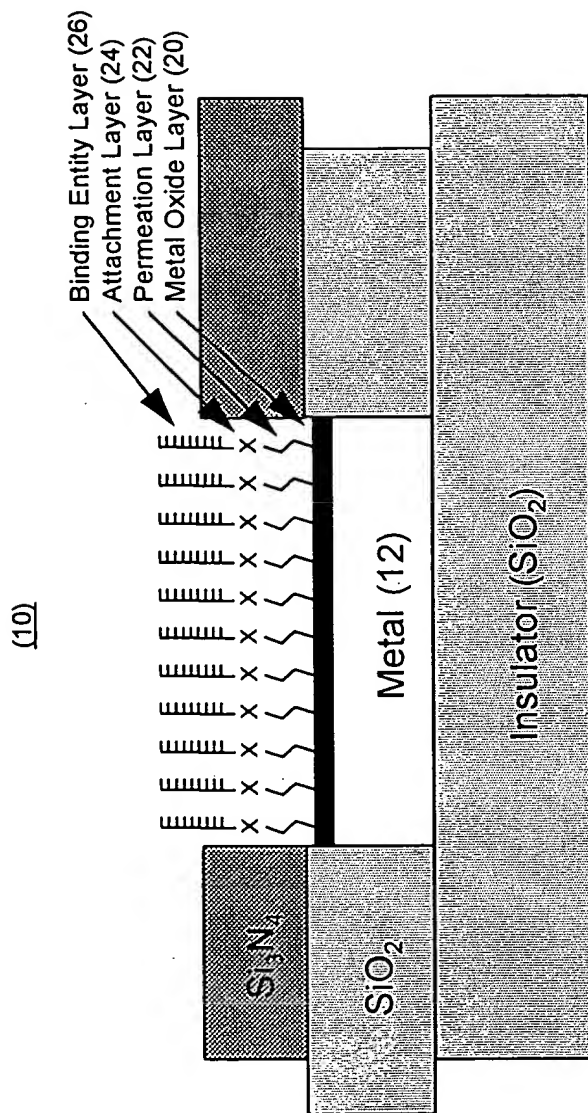


Figure 3: Self-Addressable 64 Microlocation Chip

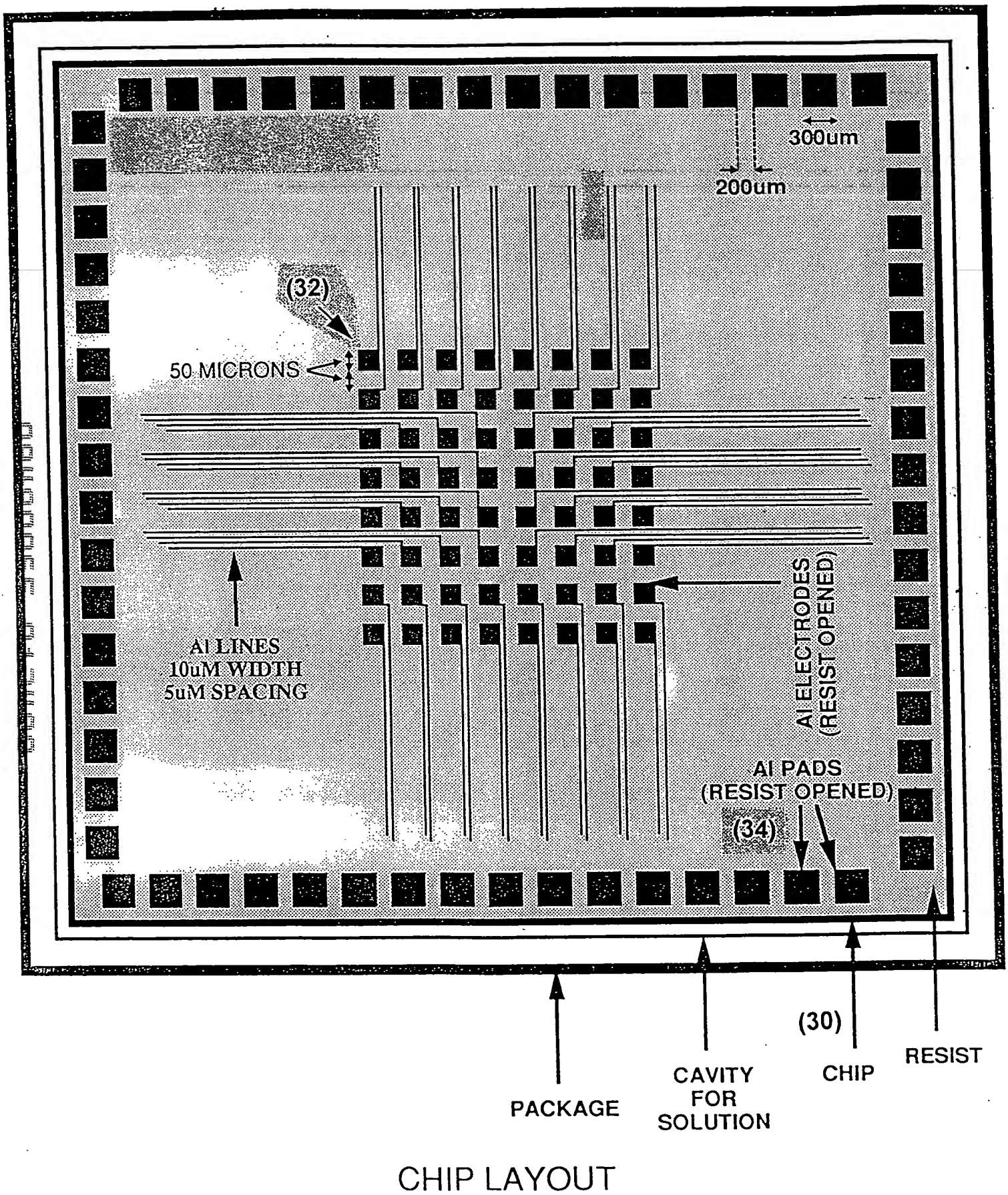


Figure 4: DNA Attachment Chemistry

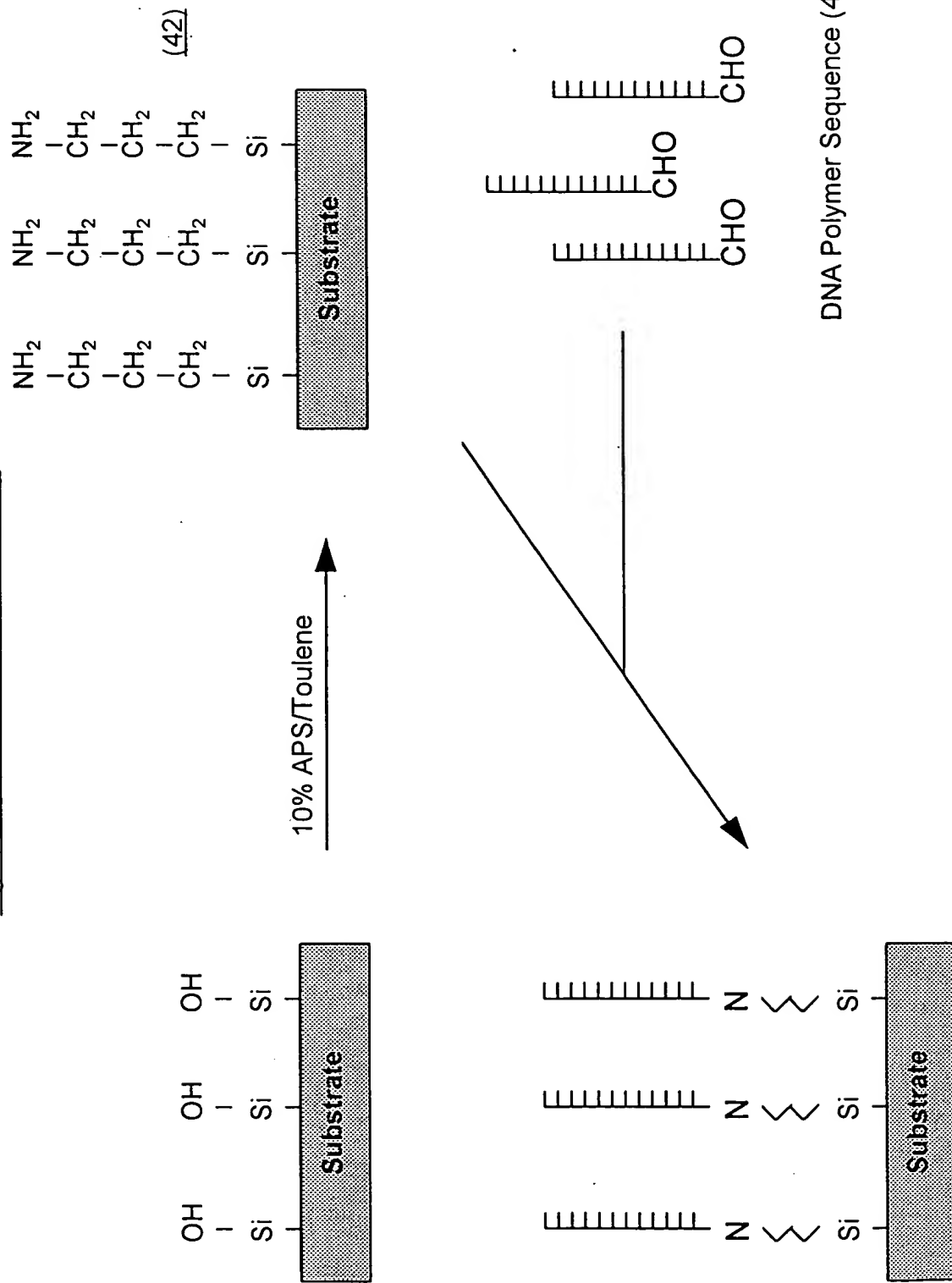


Figure 5: Micro-Machined Device (Exploded View)

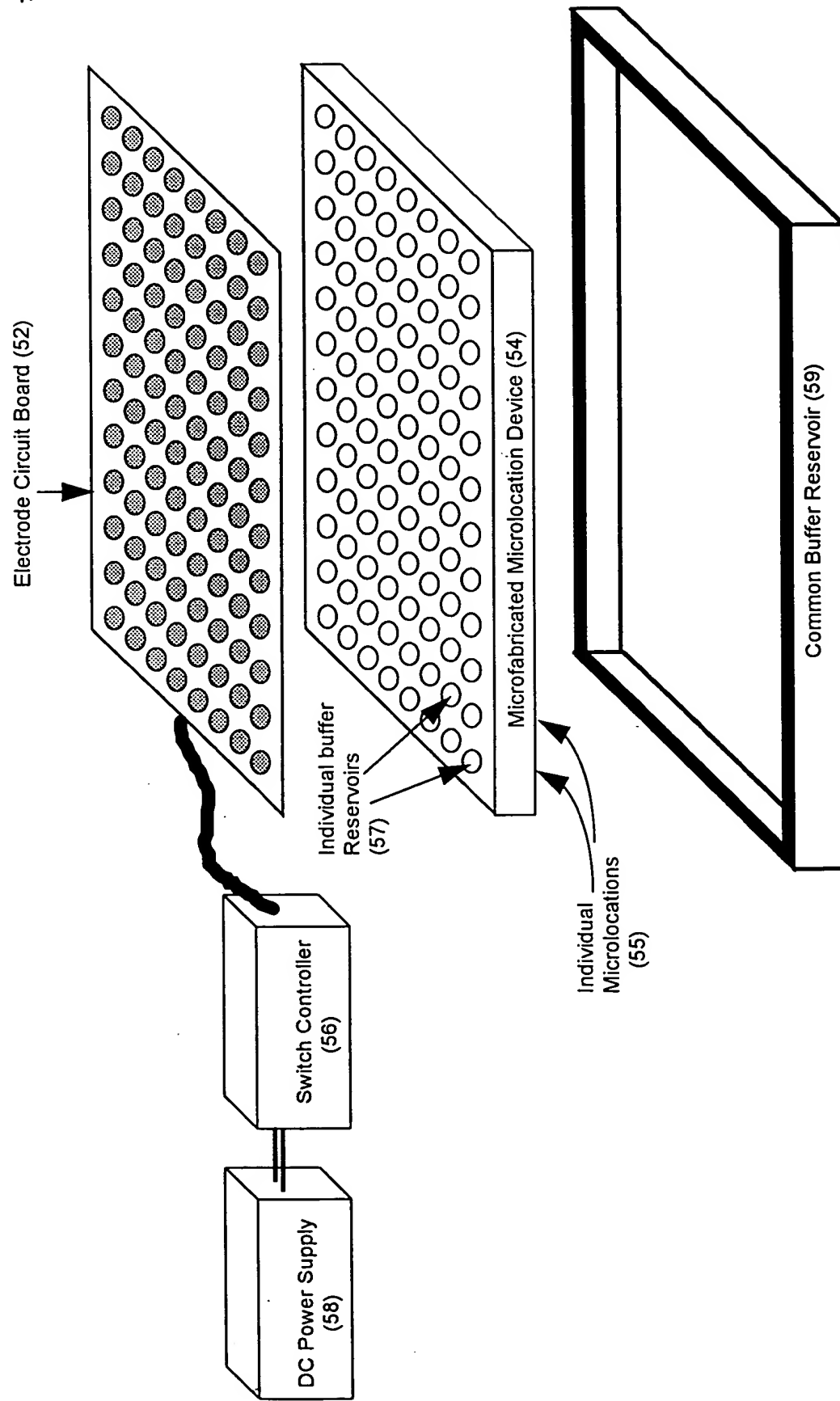


Figure 6: Micro-Machined Device (Cross-Section)

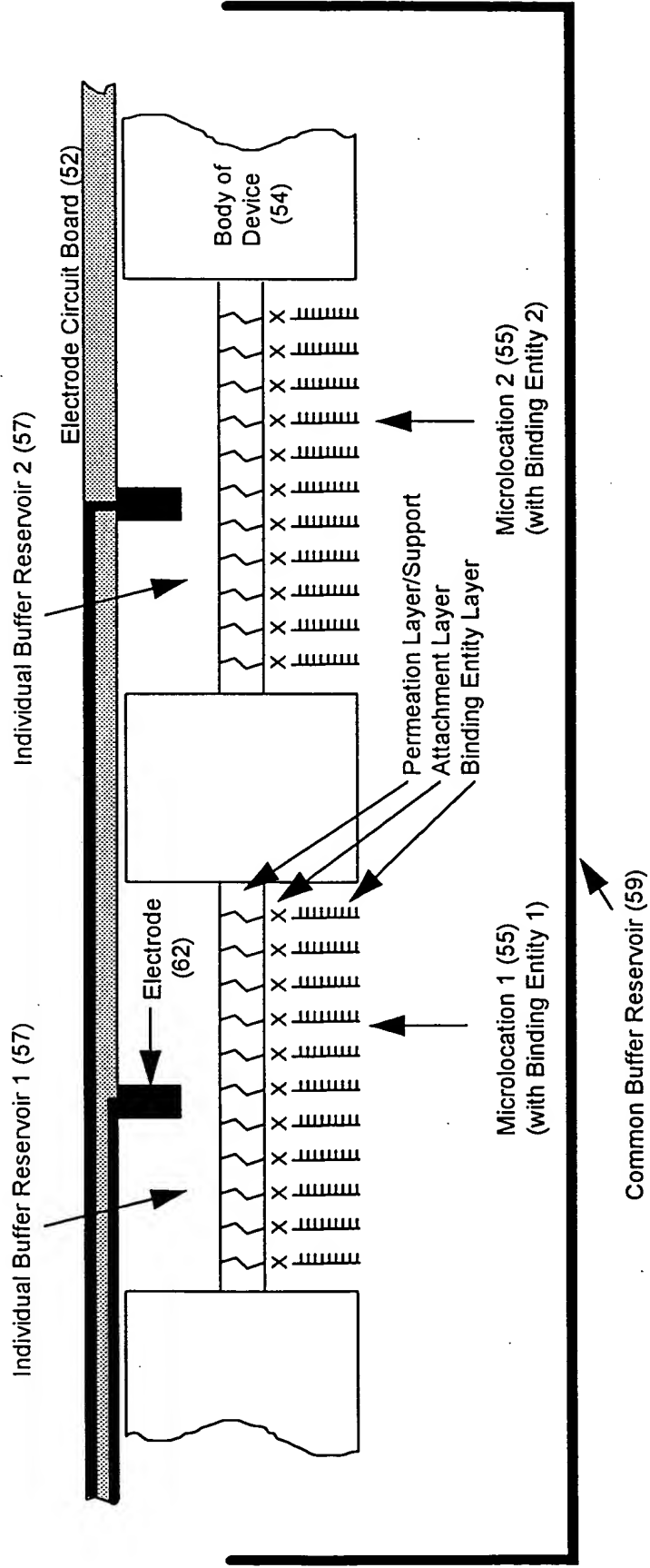


Figure 7: Electronically Controlled Concentration Effect

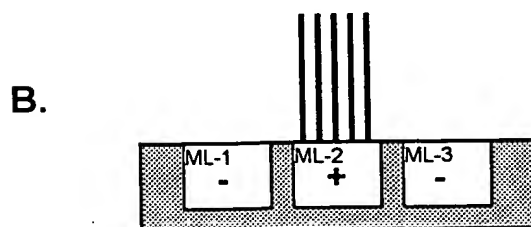
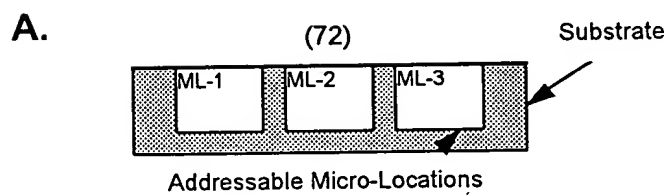
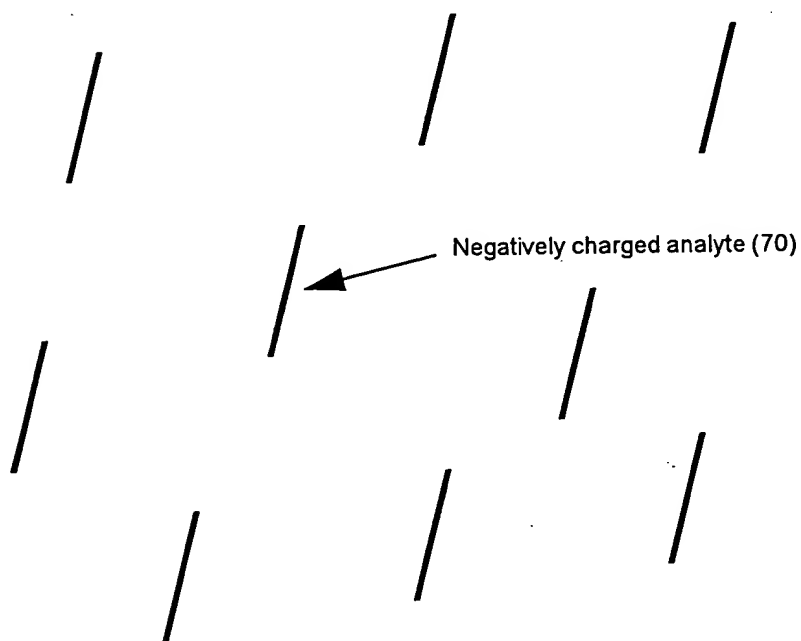
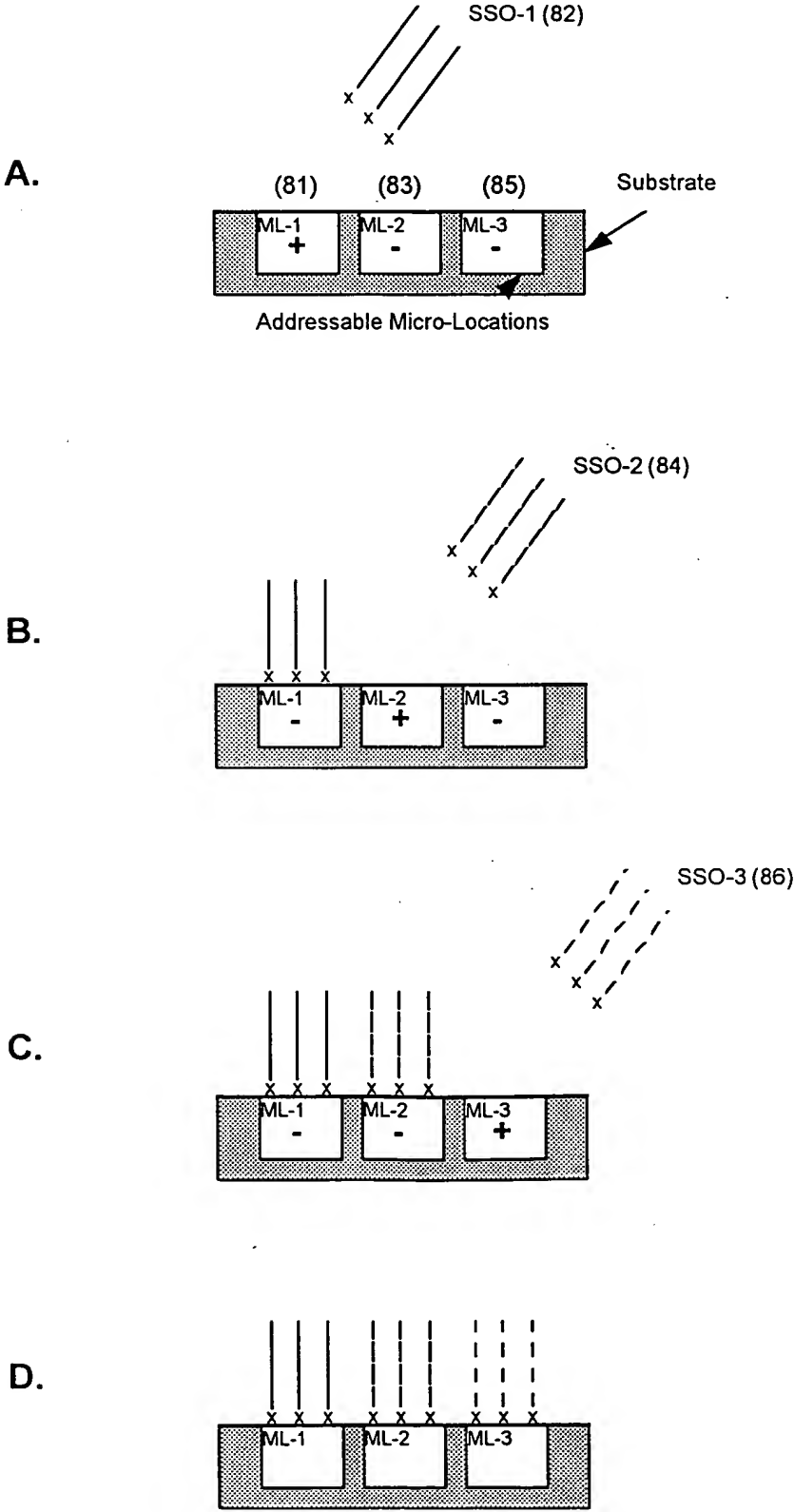


Figure 8: Electronic Addressing and Self-Directed Assembly of Device.



.. Figure 9: Electronically Controlled Hybridization Process

(90)

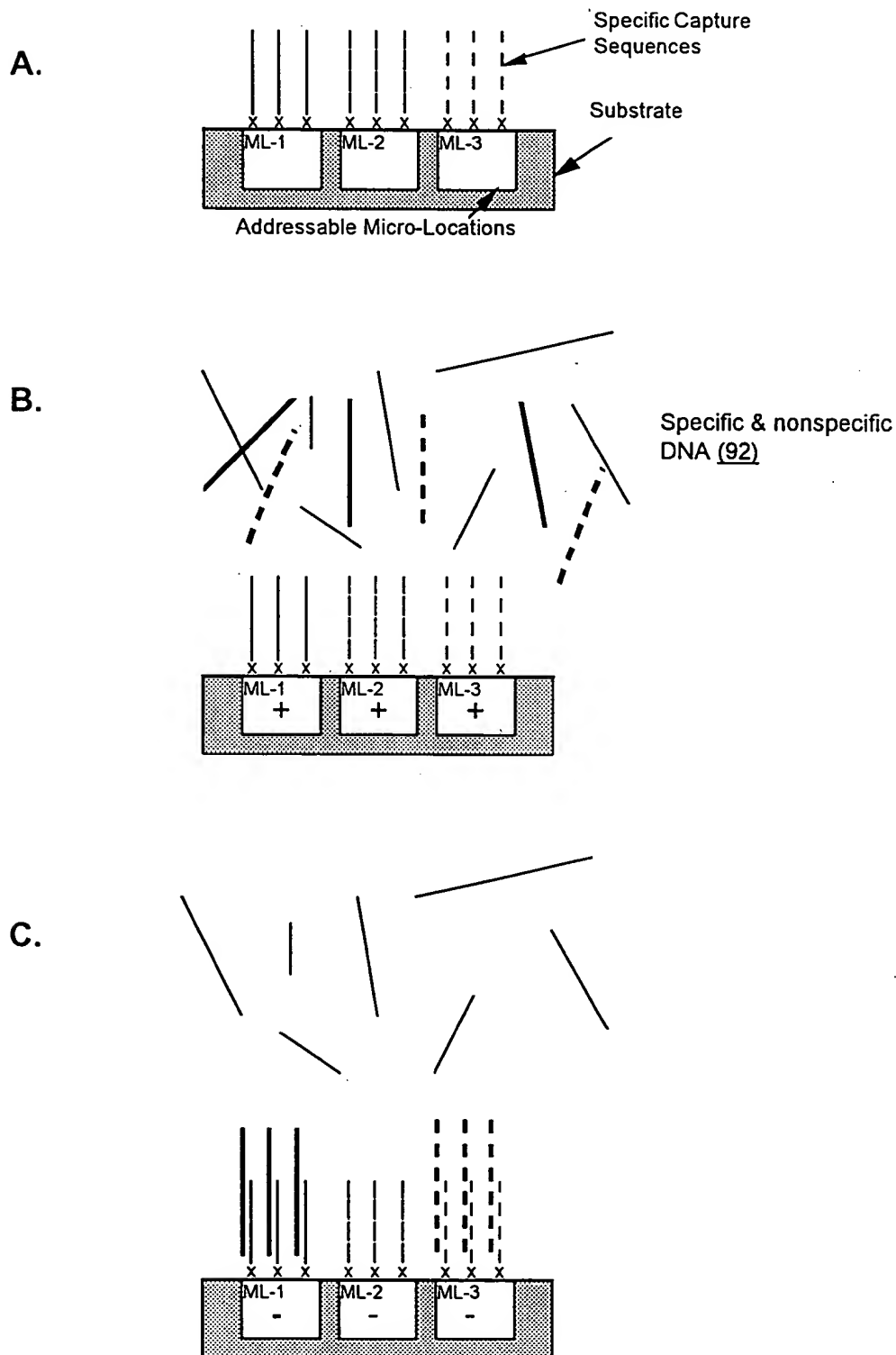


Figure 10: Electronically Directed Serial Hybridization Process

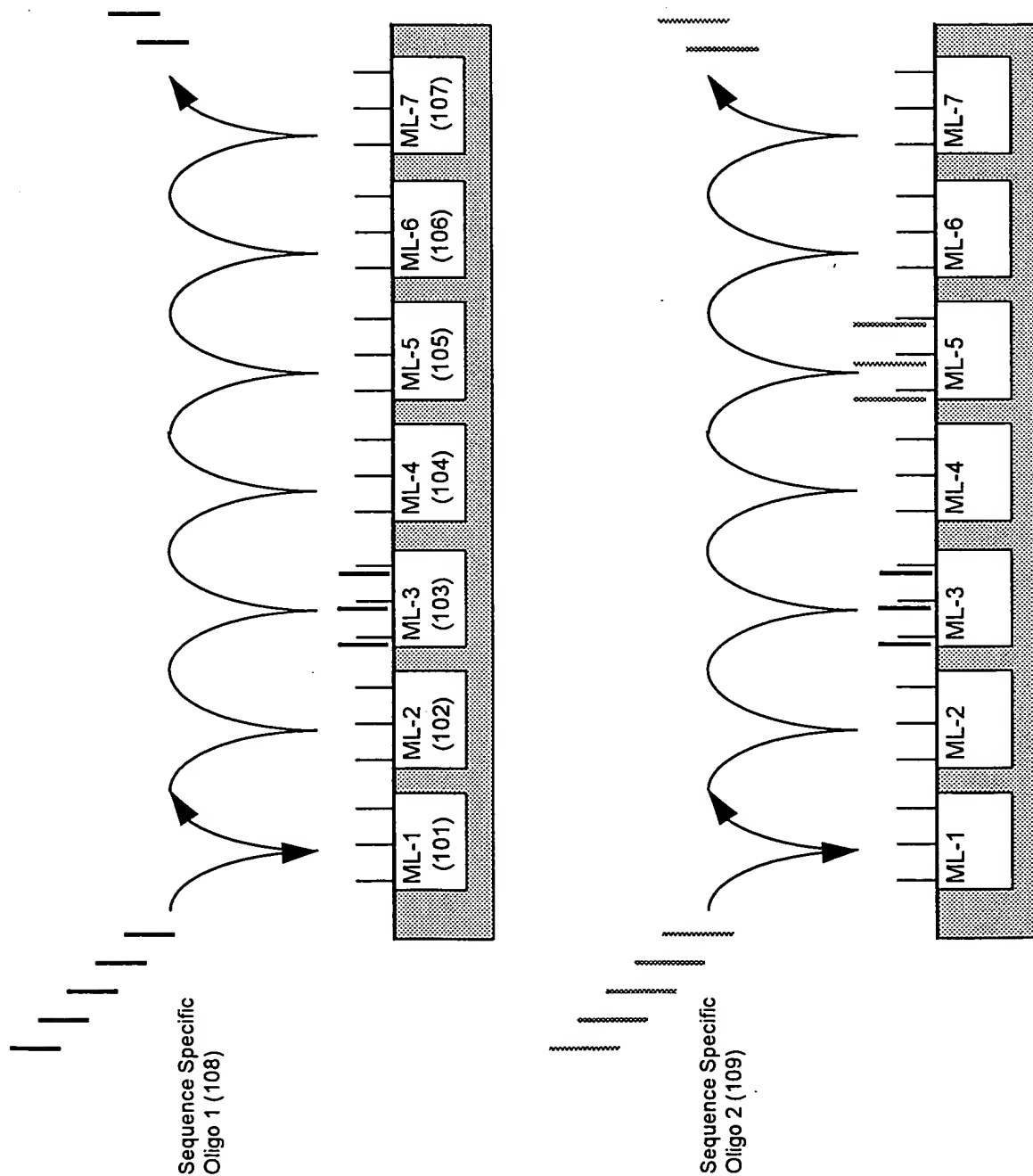


Figure 11: Electronic Stringency Control (ESC) of Hybridization Process

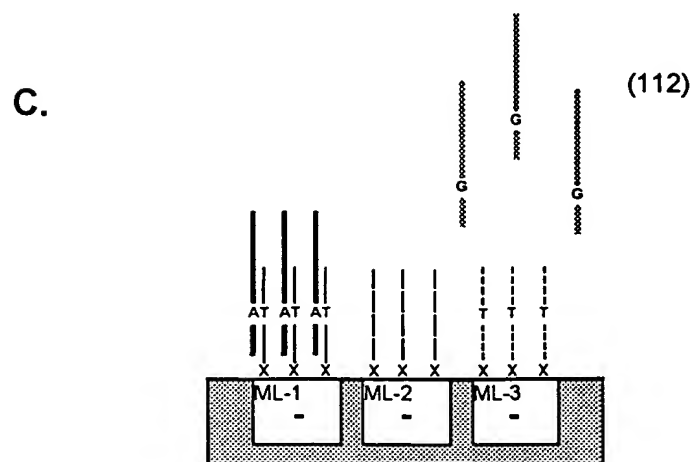
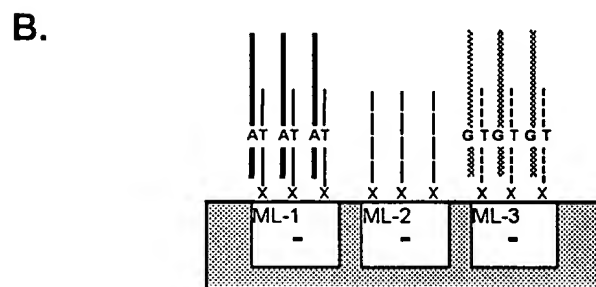
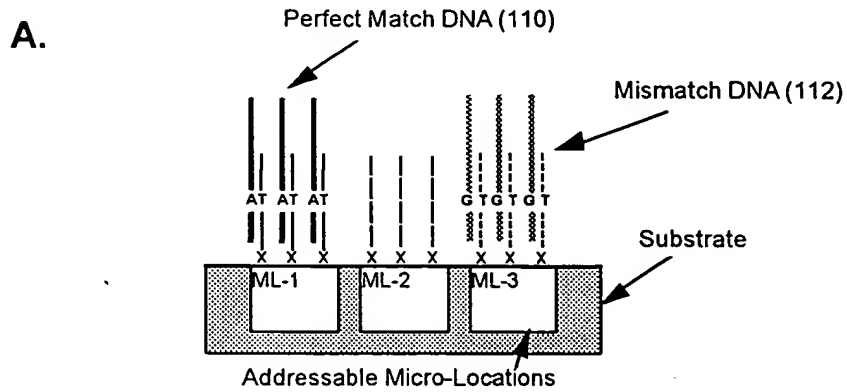


Figure 12: Electronically Controlled Fluorescent Dye Detection Process

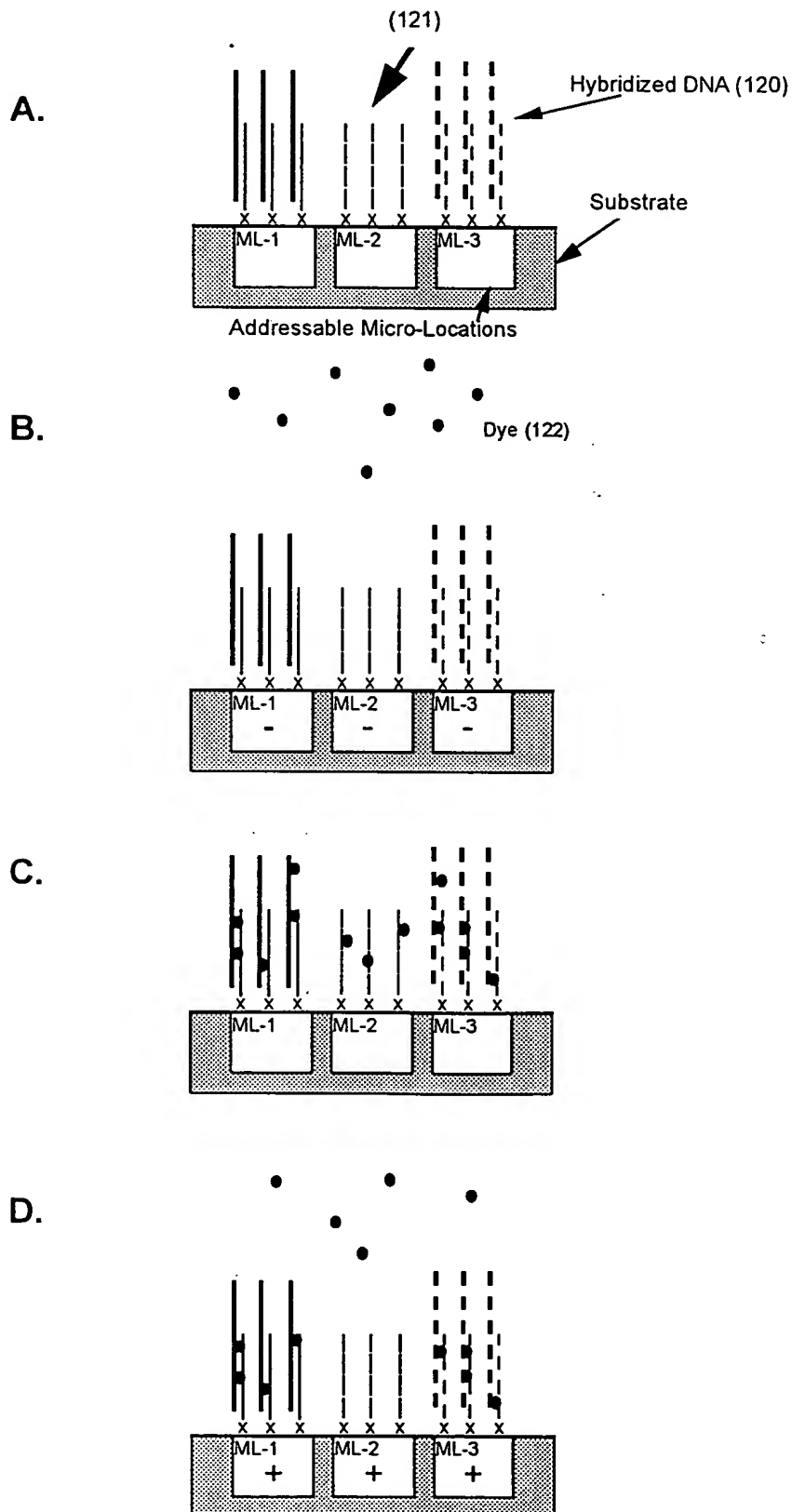


Figure 13: Electronically Controlled Template Replication

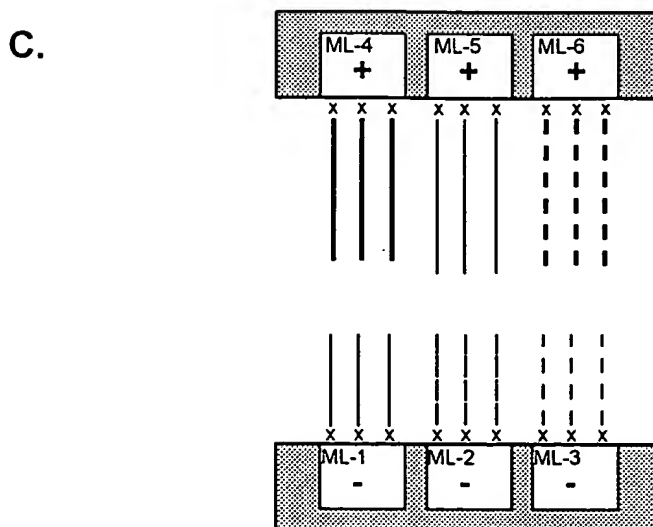
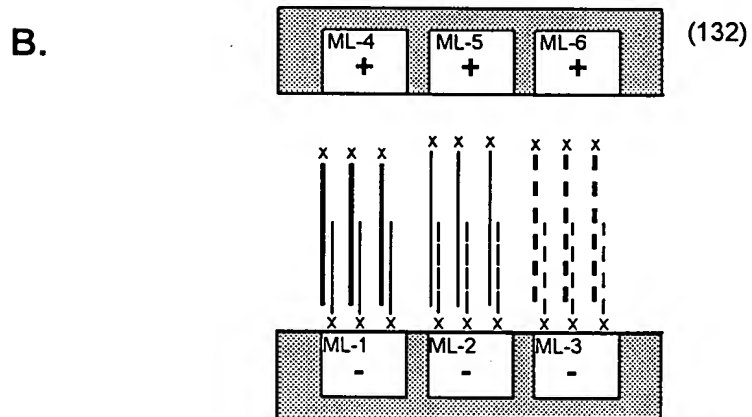
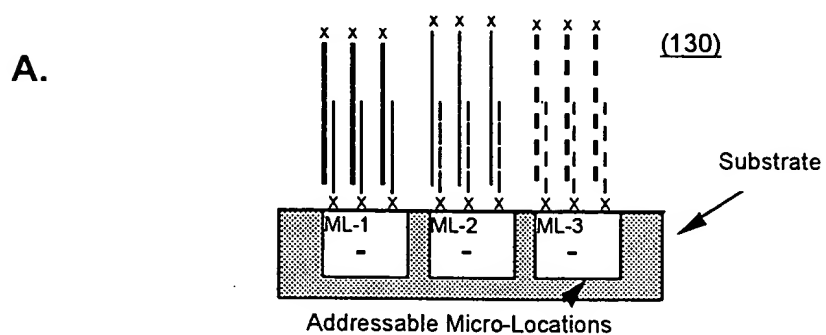


Figure 14: Electronically Directed Combinatorial Synthesis.

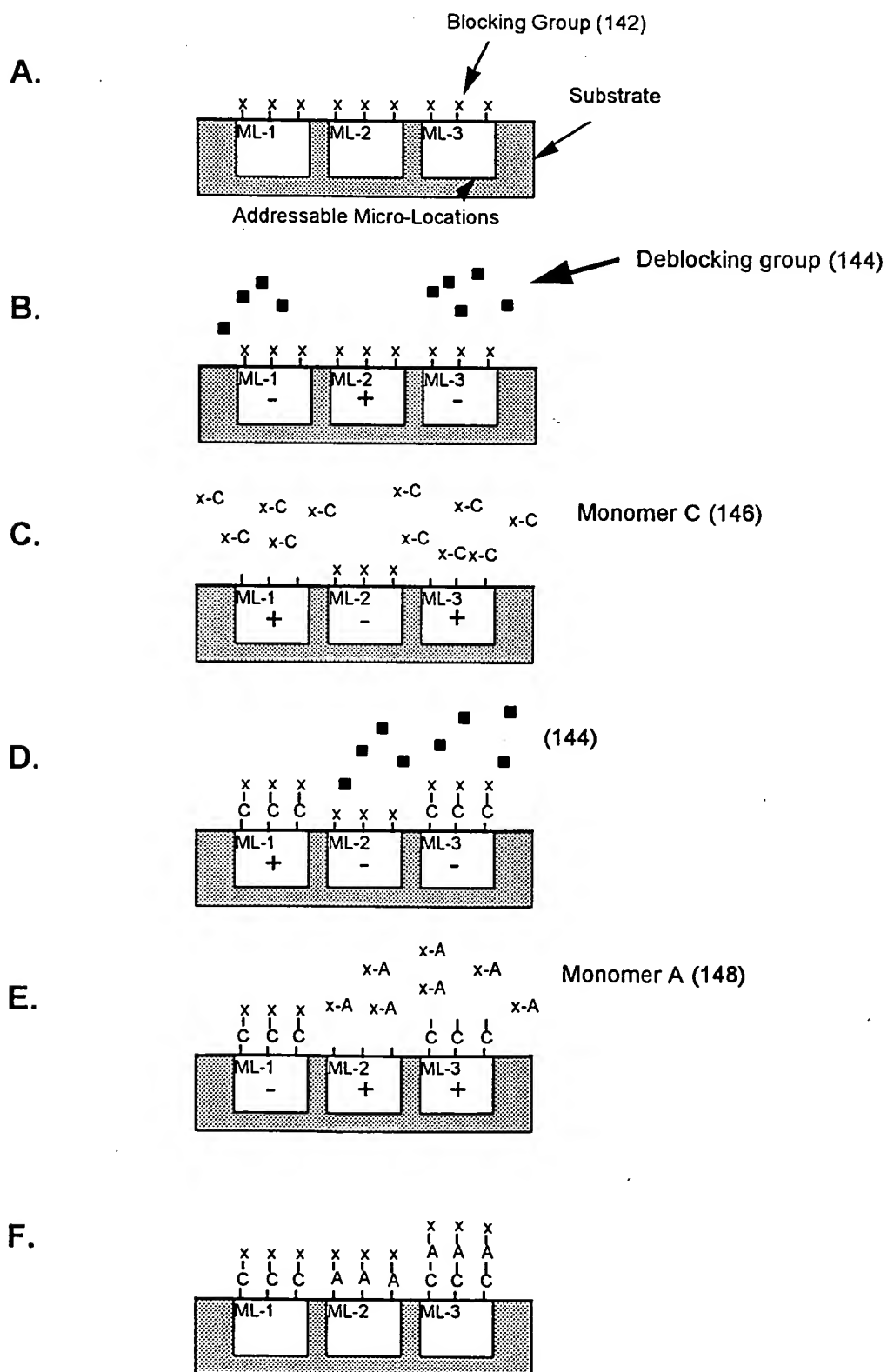


Figure 15.
Relative Sensitivity for Mismatch Discrimination

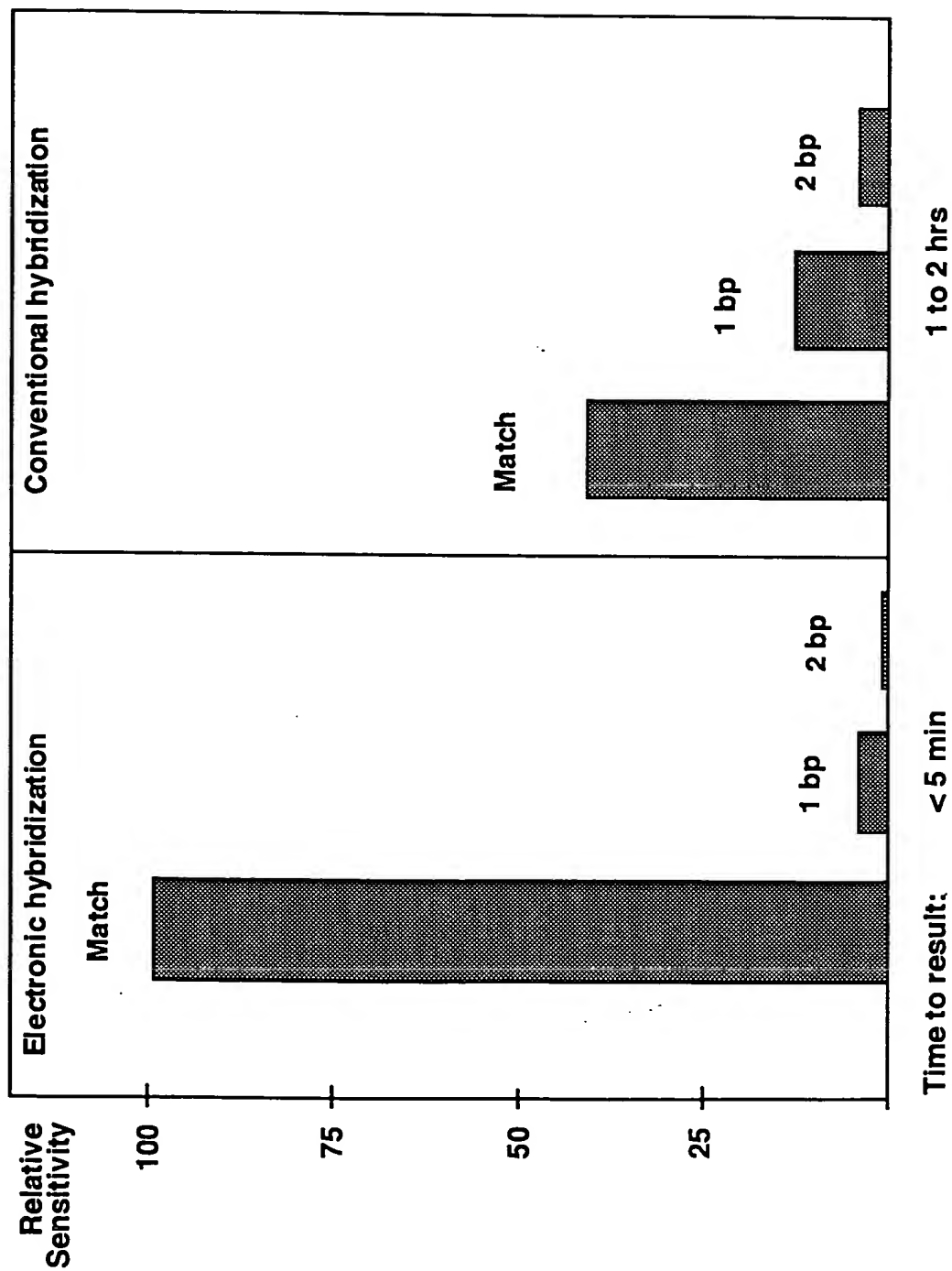


Figure 16

Electronic Restriction Cleavage

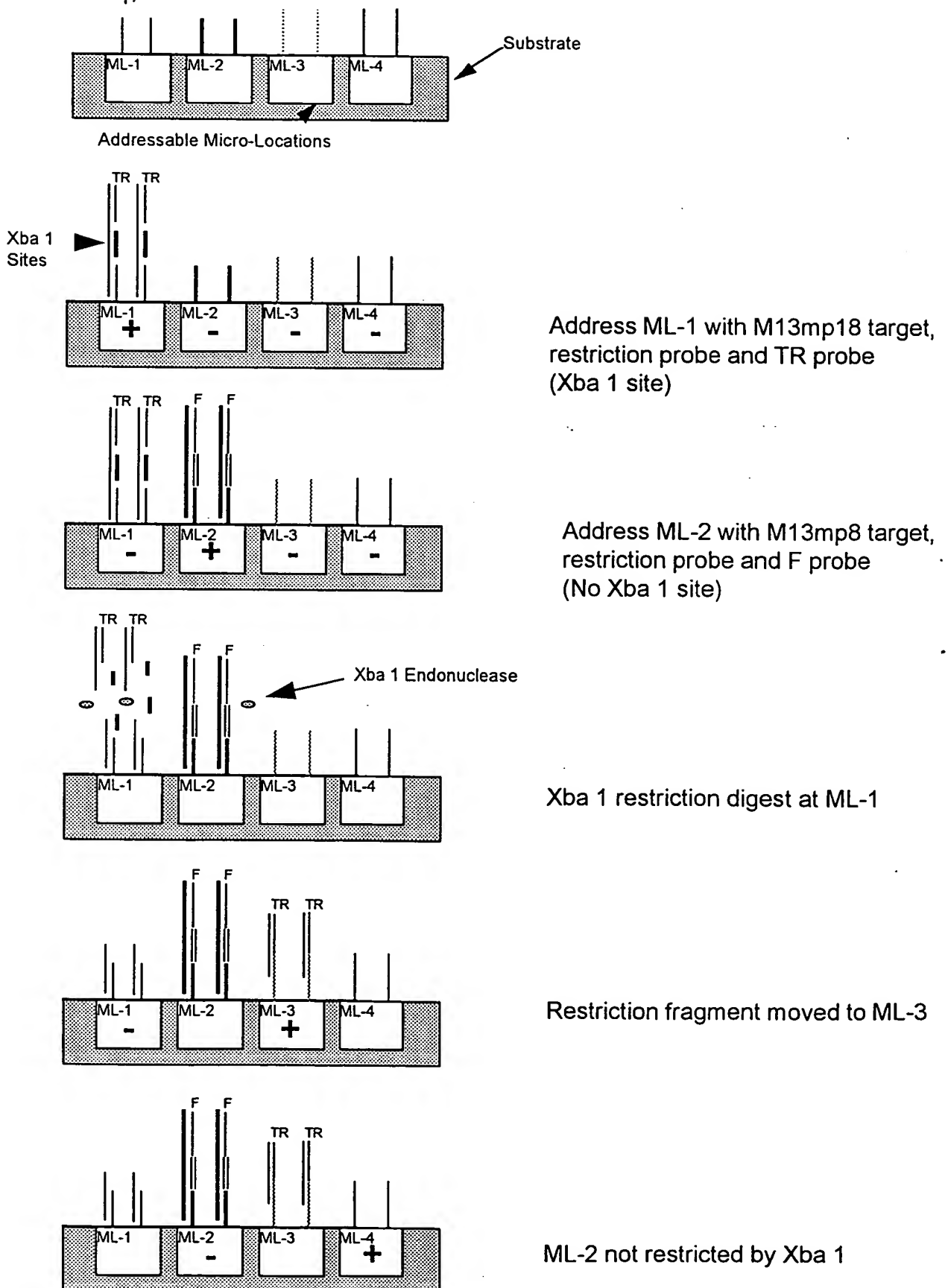
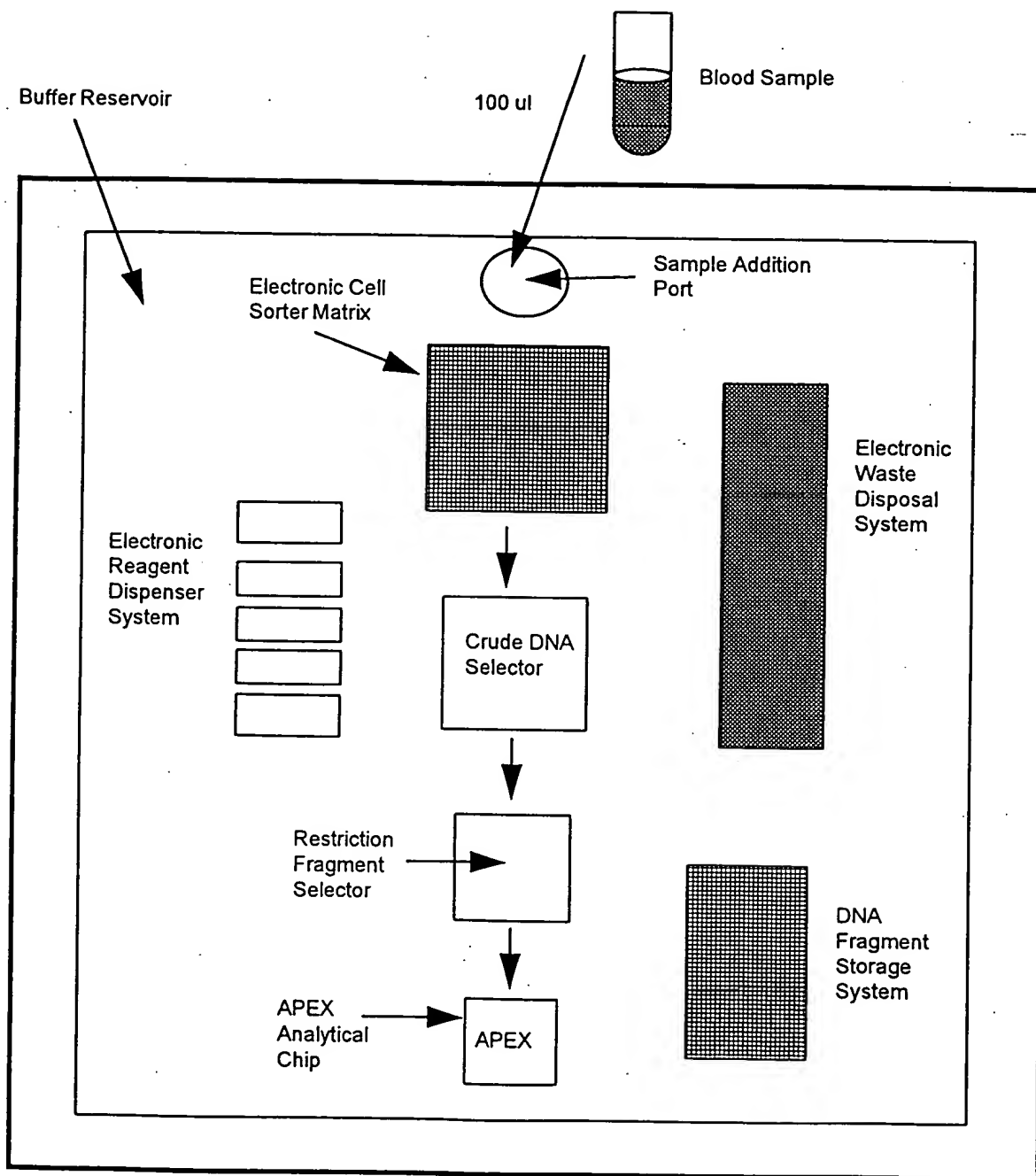


Figure 18

Complete APEX System with Sample Preparation



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